Fig. 1

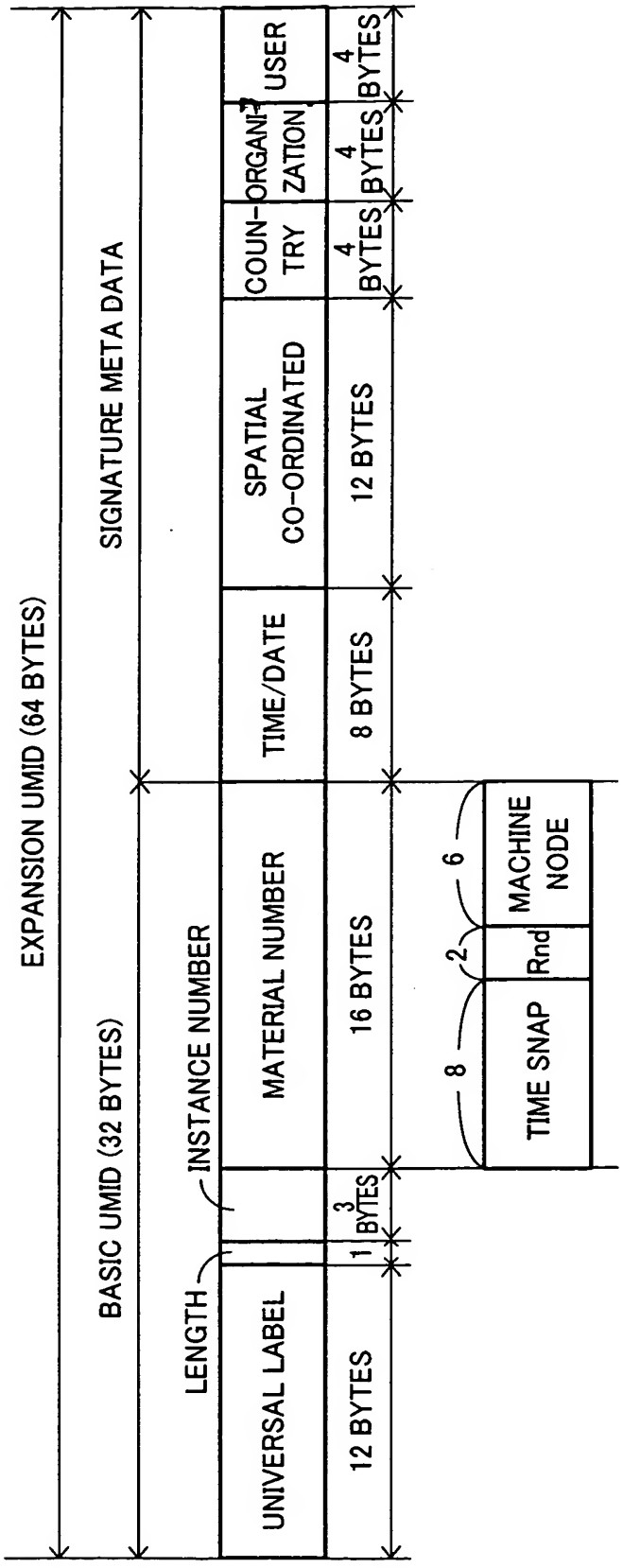

EXPANSION UMID (64 BYTES)
BASIC UMID (32 BYTES)
SIGNATURE META DATA
UNIVERSAL LABEL
12 BYTES
LENGTH
1
INSTANCE NUMBER
3 BYTES
MATERIAL NUMBER
16 BYTES
TIME/DATE
8 BYTES
SPATIAL CO-ORDINATED
12 BYTES
COUN-TRY
4 BYTES
ORGANI-ZATION
4 BYTES
USER
4 BYTES
8
TIME SNAP
2
Rnd
6
MACHINE NODE

Fig. 2

_RecStart	RECORDING START POSITION
_RecEnd	RECORDING END POSITION
_ShotMark1	ARBITRARY POSITION 1
_ShotMark2	ARBITRARY POSITION 2
_Cut	CUTTING POSITION
_Flash	FLASH DETECTING POSITION
_FilterChange	LENS FILTER CHANGE POSITION
_ShutterSpeedChange	SHUTTER SPEED CHANGE POSITION
_GainChange	GAIN CHANGE POSITION
_WhiteBalanceChange	WHITE BALANCE CHANGE POSITION
_OverBrightness	POSITION WHERE VIDEO OUTPUT LEVEL EXCEEDS 100%
_OverAudioLimiter	POSITION WHERE AUDIO OUTPUT LEVEL EXCEEDS LIMIT VALUE
_In-XXX	CUTTING START POSITION OF MATERIAL
_Out-XXX	CUTTING END POSITION OF MATERIAL

Fig. 3

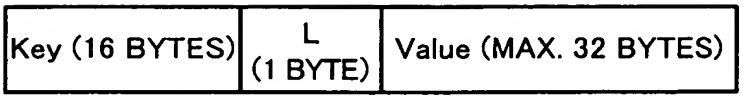


Fig. 4

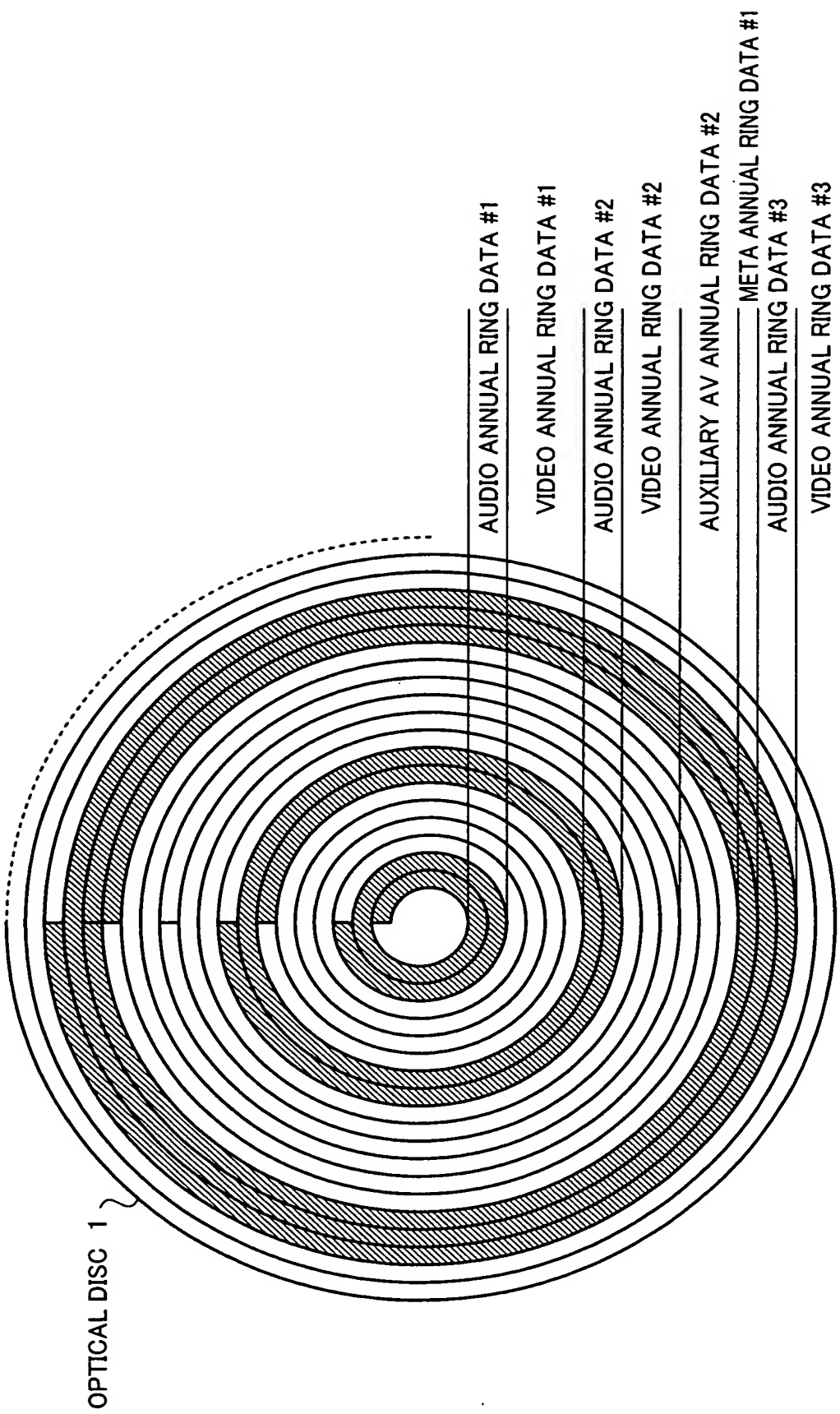

OPTICAL DISC 1
AUDIO ANNUAL RING DATA #1
VIDEO ANNUAL RING DATA #1
AUDIO ANNUAL RING DATA #2
VIDEO ANNUAL RING DATA #2
AUXILIARY AV ANNUAL RING DATA #2
META ANNUAL RING DATA #1
AUDIO ANNUAL RING DATA #3
VIDEO ANNUAL RING DATA #3

Fig. 5A

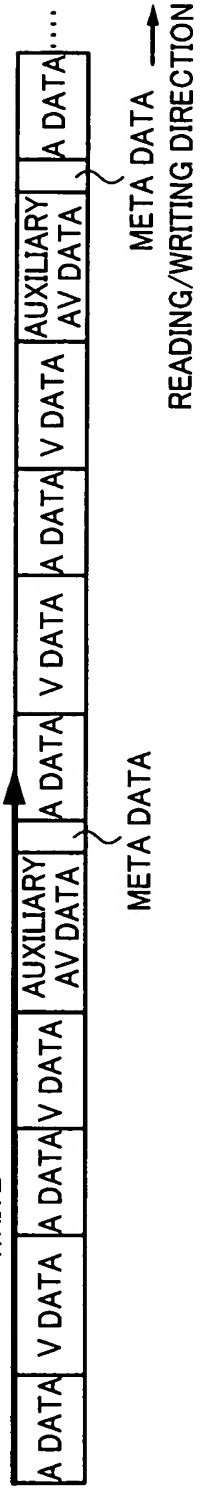
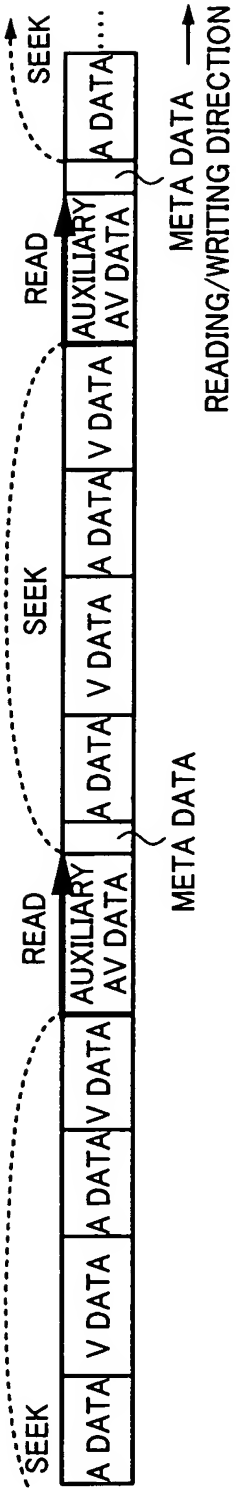

WRITE
A DATA
V DATA
A DATA
V DATA
AUXILIARY AV DATA
A DATA
V DATA
A DATA
V DATA
AUXILIARY AV DATA
A DATA
META DATA
META DATA
READING/WRITING DIRECTION

Fig. 5B


SEEK
READ
SEEK
READ
SEEK
A DATA
V DATA
A DATA
V DATA
AUXILIARY AV DATA
A DATA
V DATA
A DATA
V DATA
AUXILIARY AV DATA
A DATA
META DATA
META DATA
READING/WRITING DIRECTION

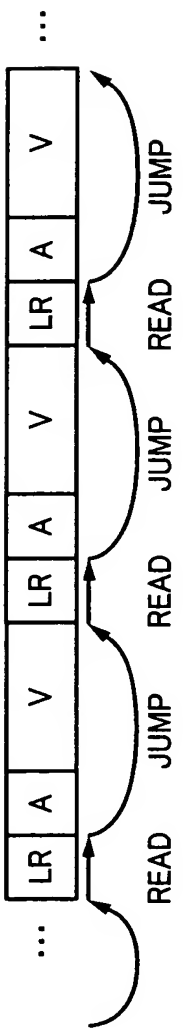


Fig. 6A

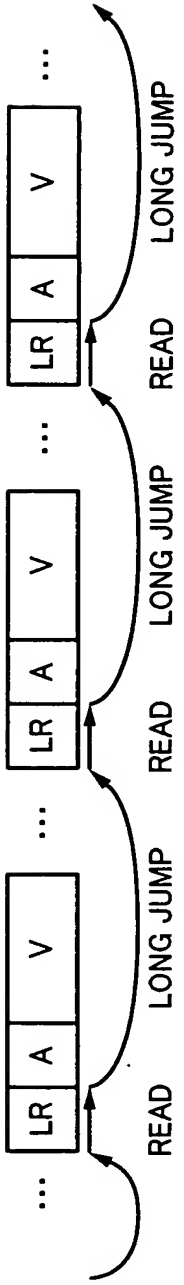


Fig. 6B

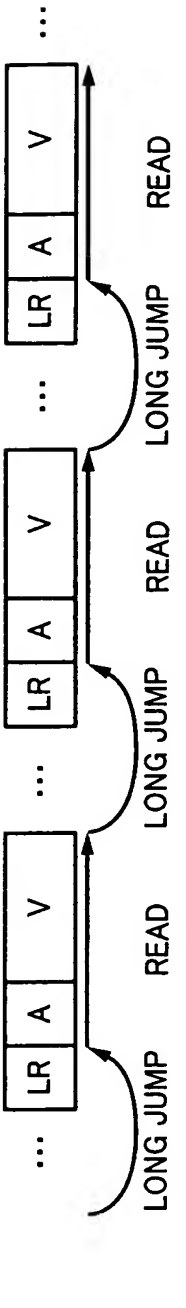


Fig. 6C

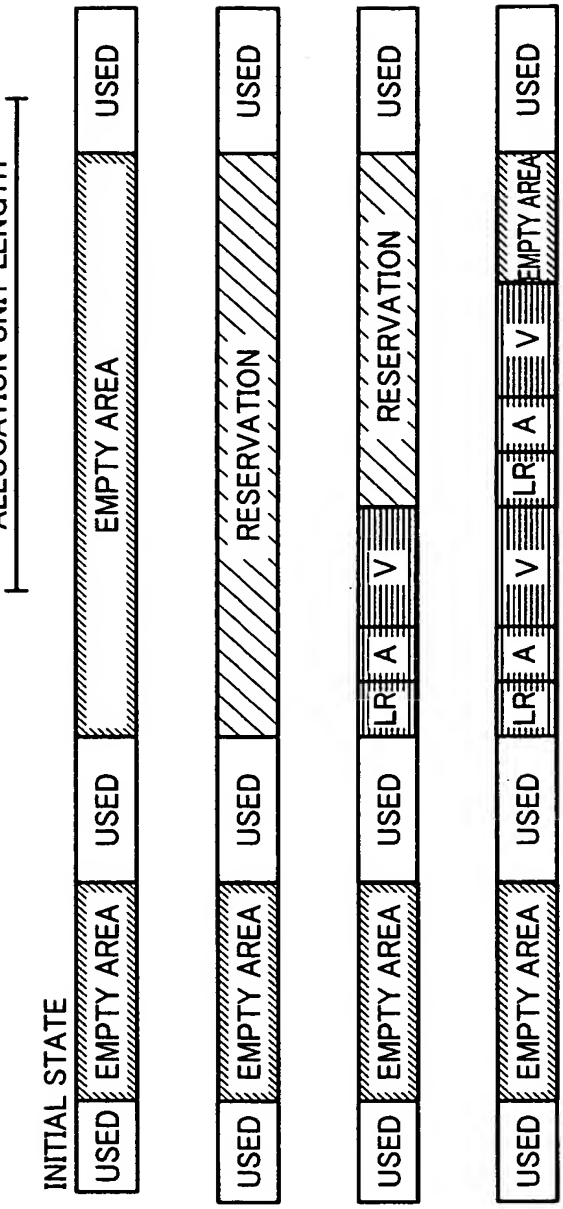


Fig. 7A

Fig. 7B

Fig. 7C

Fig. 7D

Fig. 8

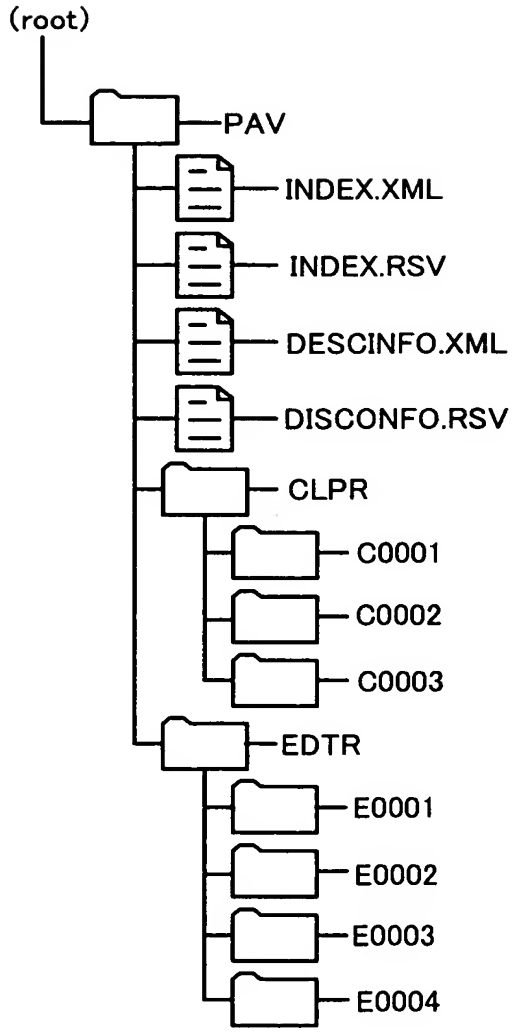

(root)
PAV
INDEX.XML
INDEX.RSV
DESCINFO.XML
DISCONFO.RSV
CLPR
C0001
C0002
C0003
EDTR
E0001
E0002
E0003
E0004

Fig. 9

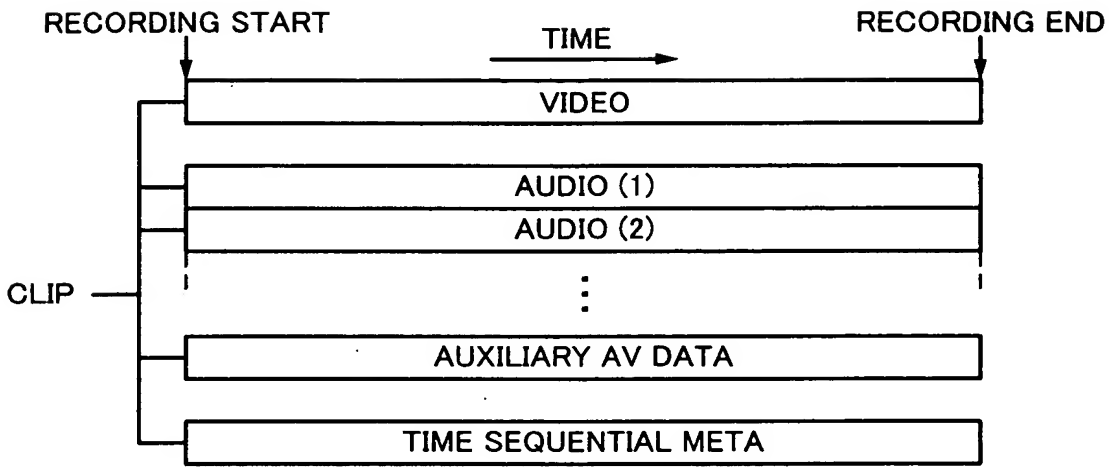

RECORDING START
TIME
RECORDING END
VIDEO
AUDIO (1)
AUDIO (2)
CLIP
AUXILIARY AV DATA
TIME SEQUENTIAL META

Fig. 10

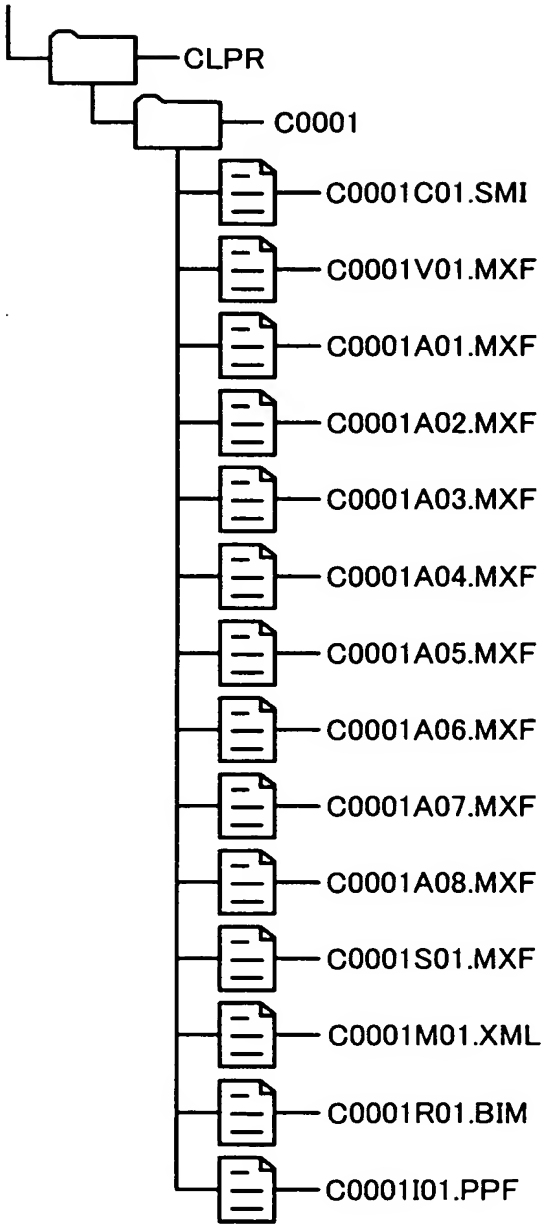
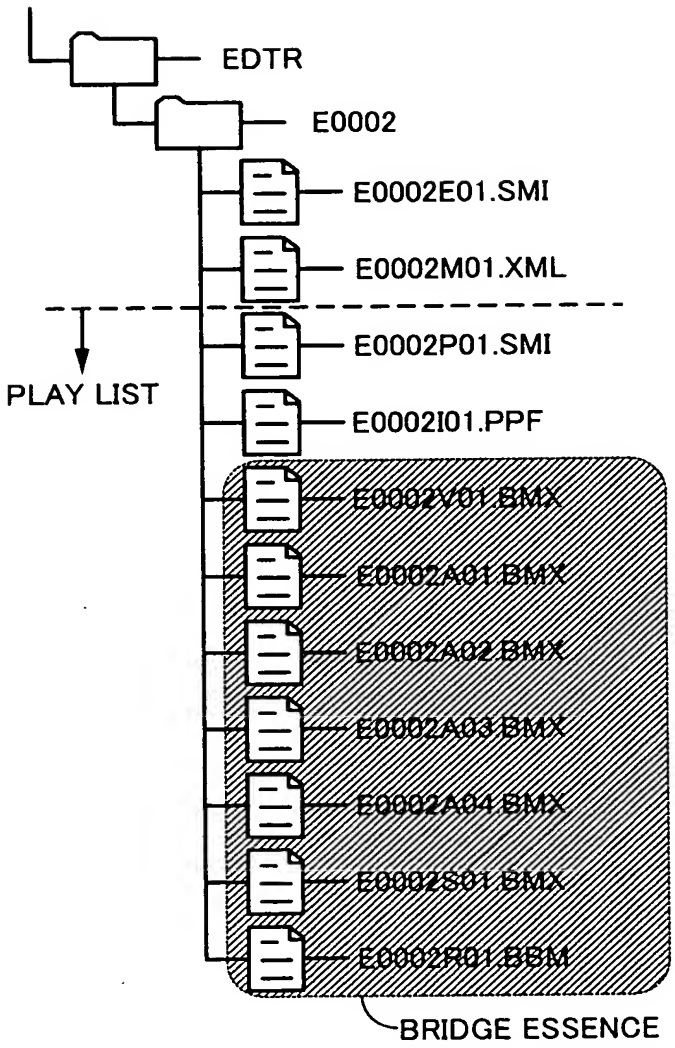

CLPR
C0001
C0001C01.SMI
C0001V01.MXF
C0001A01.MXF
C0001A02.MXF
C0001A03.MXF
C0001A04.MXF
C0001A05.MXF
C0001A06.MXF
C0001A07.MXF
C0001A08.MXF
C0001S01.MXF
C0001M01.XML
C0001R01.BIM
C0001I01.PPF

Fig. 11


EDTR
E0002
E0002E01.SMI
E0002M01.XML
PLAY LIST
E0002P01.SMI
E0002I01.PPF
E0002V01.BMX
E0002A01.BMX
E0002A02.BMX
E0002A03.BMX
E0002A04.BMX
E0002S01.BMX
E0002R01.BBM
BRIDGE ESSENCE

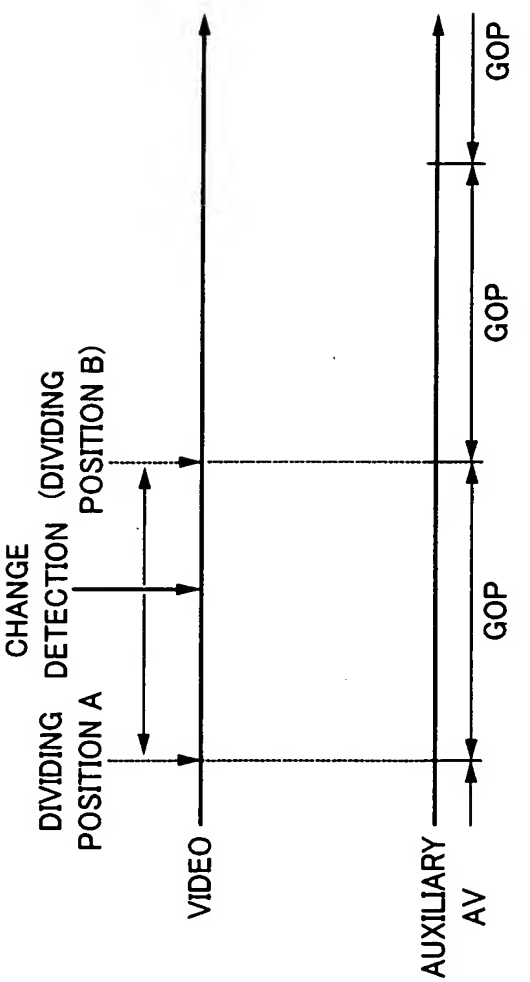


Fig. 12A

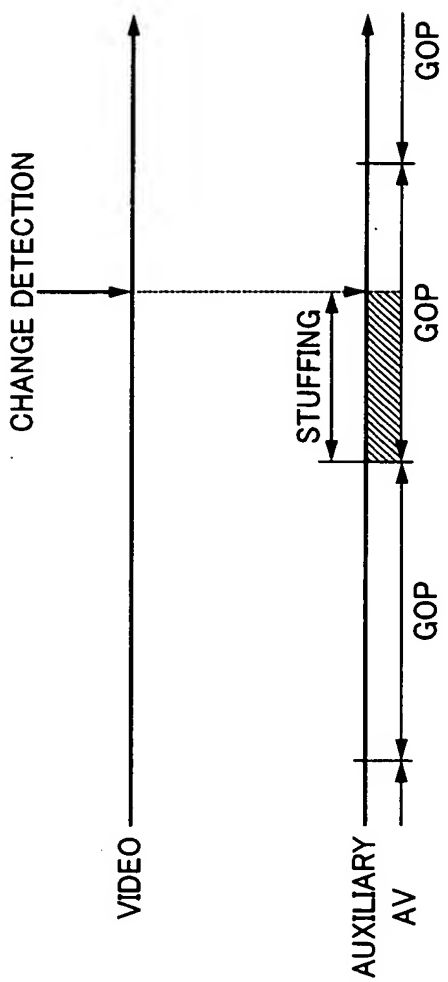


Fig. 12B

Fig. 13

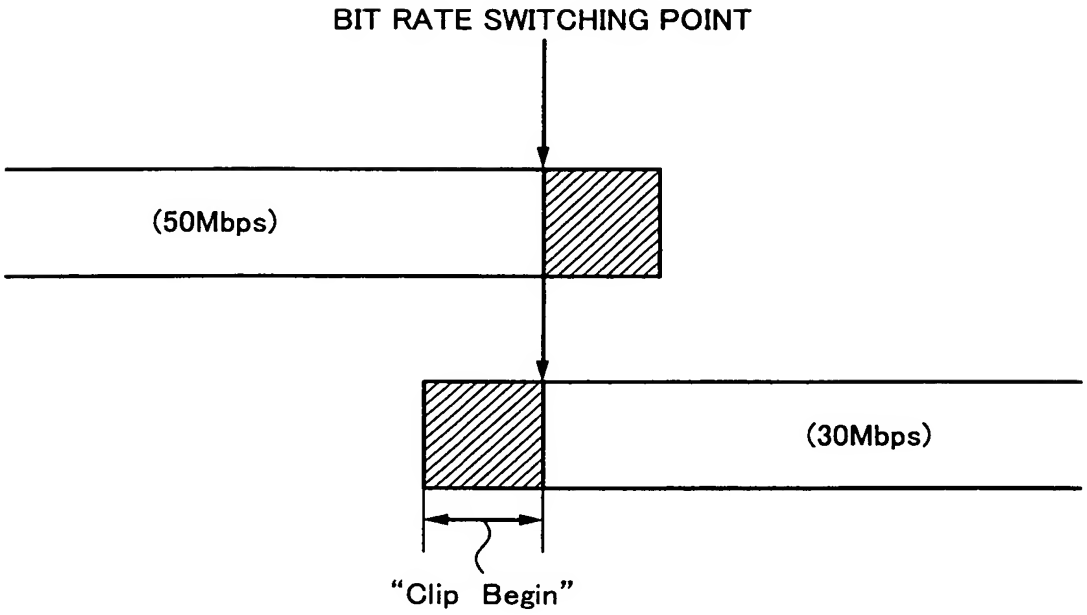


Fig. 14

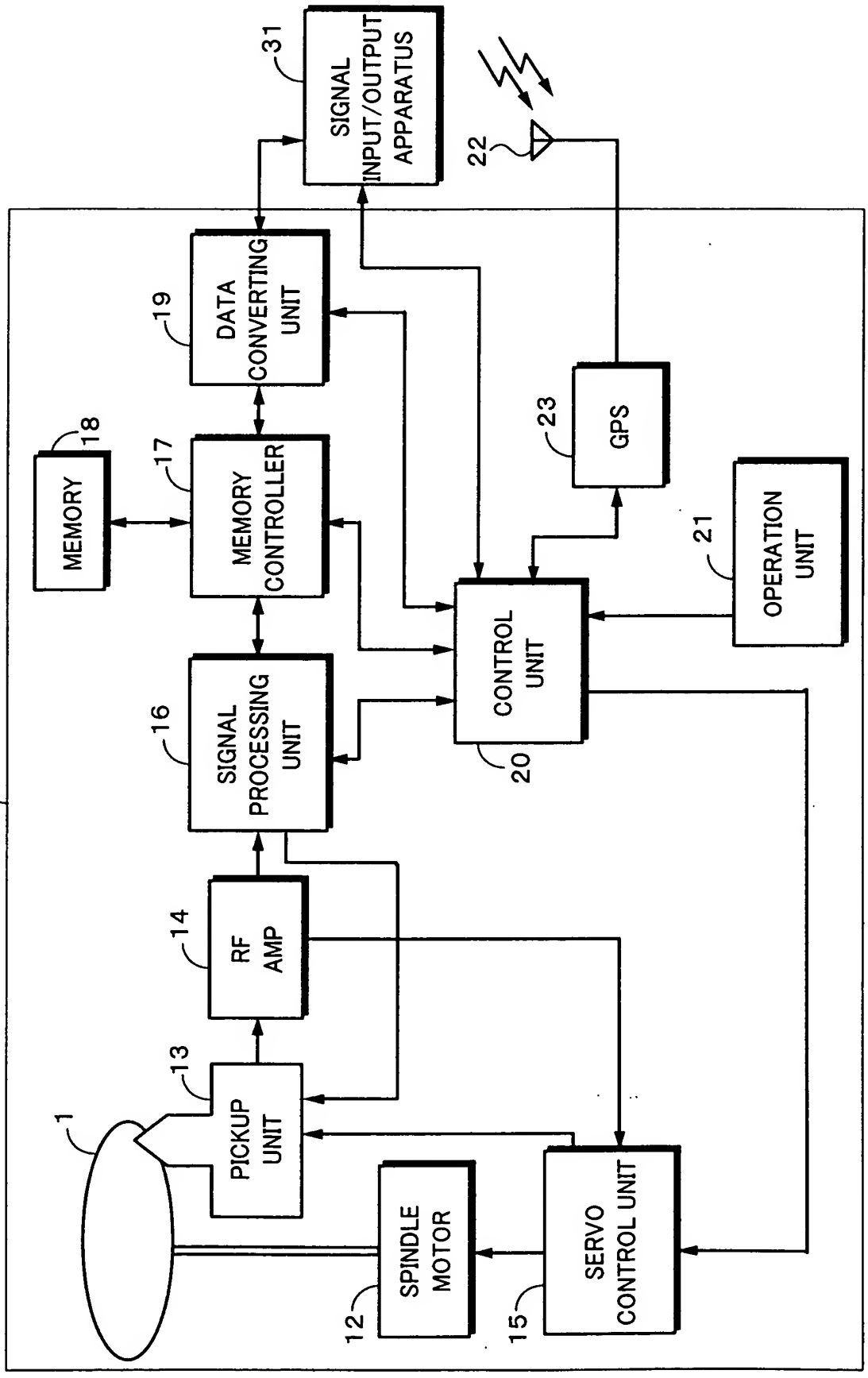

10
1
PICKUP UNIT
13
RF AMP
14
SIGNAL PROCESSING UNIT
16
MEMORY CONTROLLER
17
MEMORY
18
DATA CONVERTING UNIT
19
SIGNAL INPUT/OUTPUT APPARATUS
31
CONTROL UNIT
20
OPERATION UNIT
21
GPS
23
22
SPINDLE MOTOR
12
SERVO CONTROL UNIT
15

Fig. 15

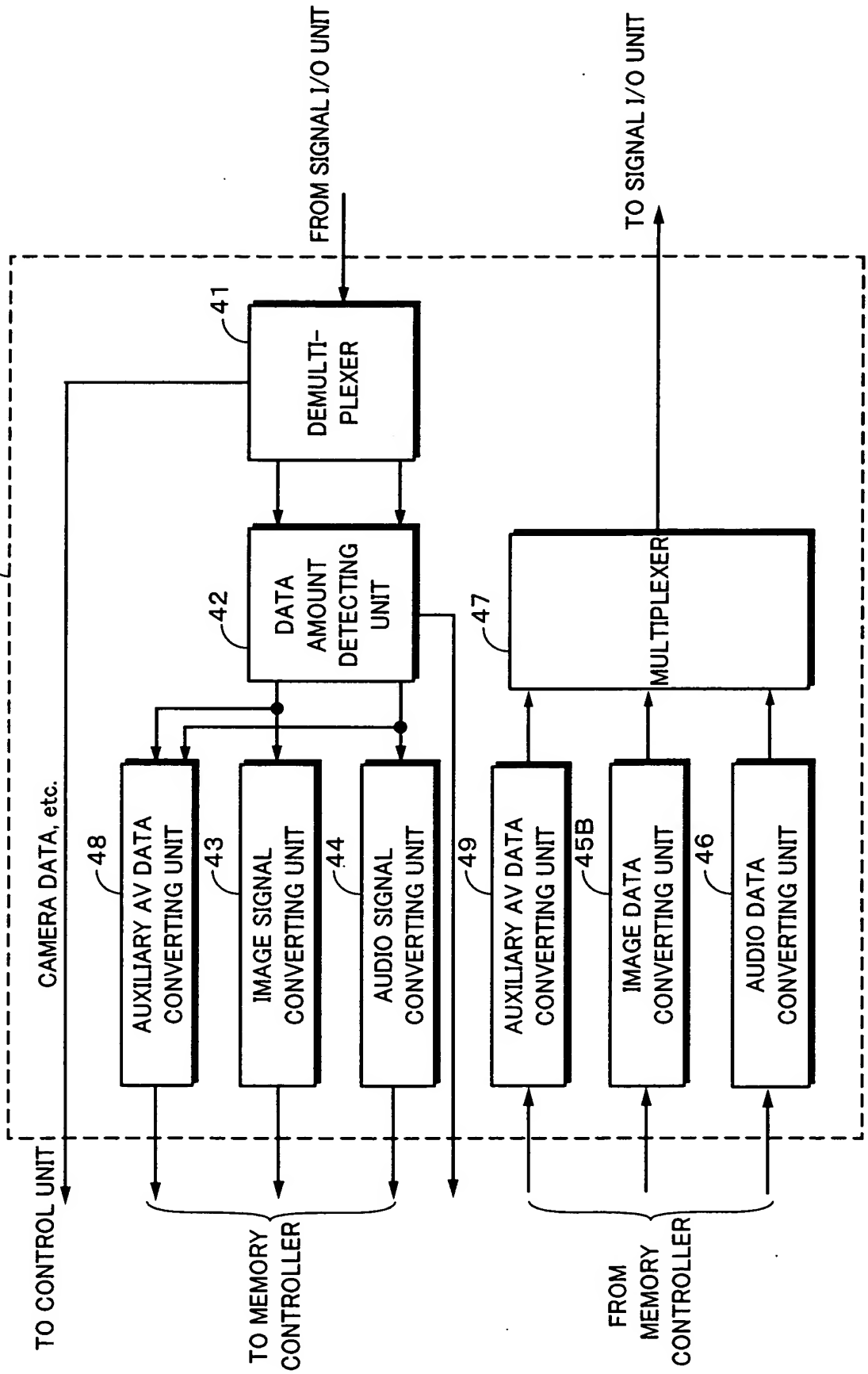

19
FROM SIGNAL I/O UNIT
TO SIGNAL I/O UNIT
41
DEMULTI-PLEXER
42
DATA AMOUNT DETECTING UNIT
47
MULTIPLEXER
CAMERA DATA, etc.
48
AUXILIARY AV DATA CONVERTING UNIT
43
IMAGE SIGNAL CONVERTING UNIT
44
AUDIO SIGNAL CONVERTING UNIT
49
AUXILIARY AV DATA CONVERTING UNIT
45B
IMAGE DATA CONVERTING UNIT
46
AUDIO DATA CONVERTING UNIT
TO CONTROL UNIT
TO MEMORY CONTROLLER
FROM MEMORY CONTROLLER

Fig. 16A

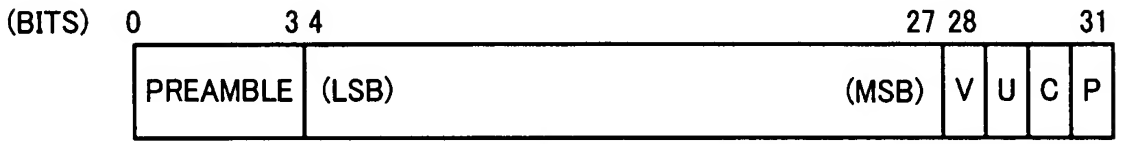


Fig. 16B

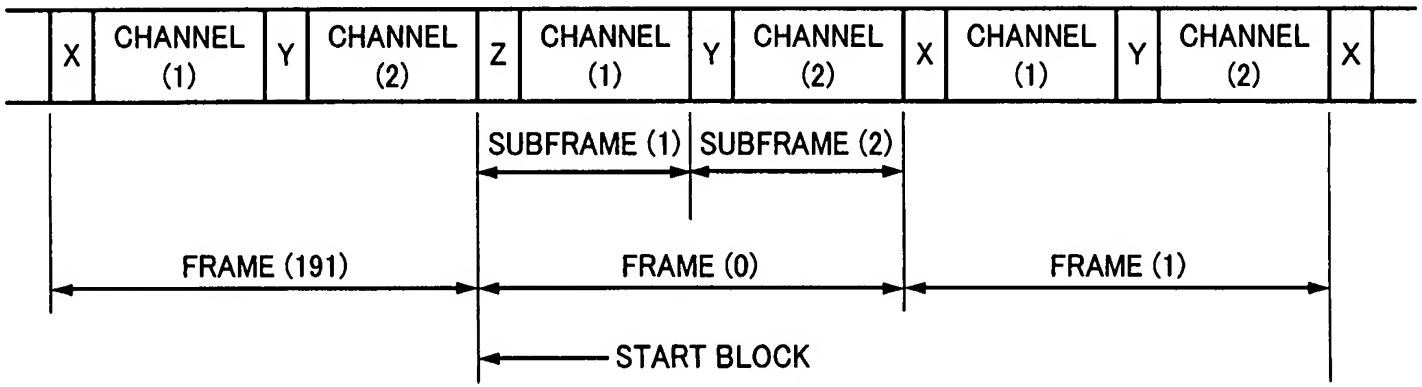


Fig. 16C

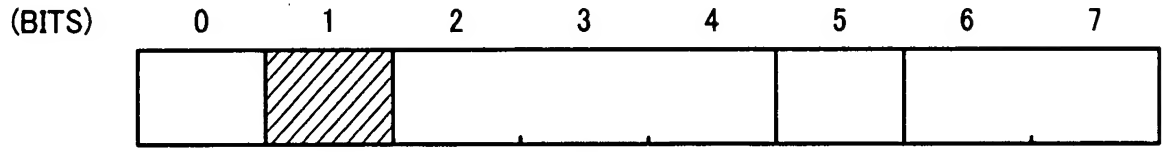
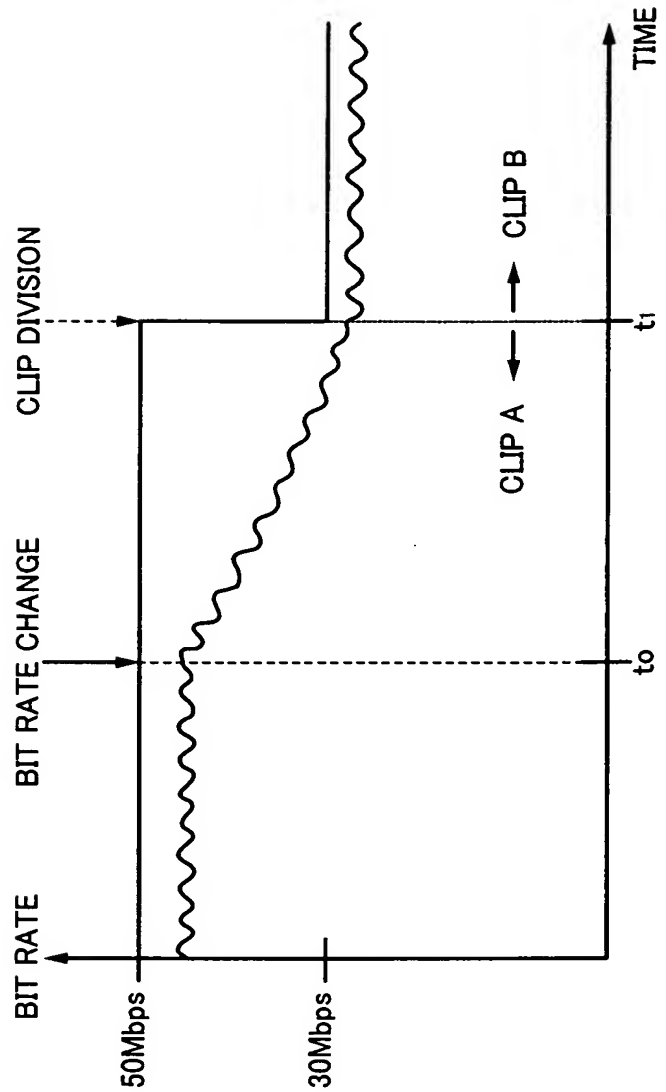


Fig. 17


BIT RATE
50Mbps
30Mbps
BIT RATE CHANGE
CLIP DIVISION
to
t1
CLIP A
CLIP B
TIME

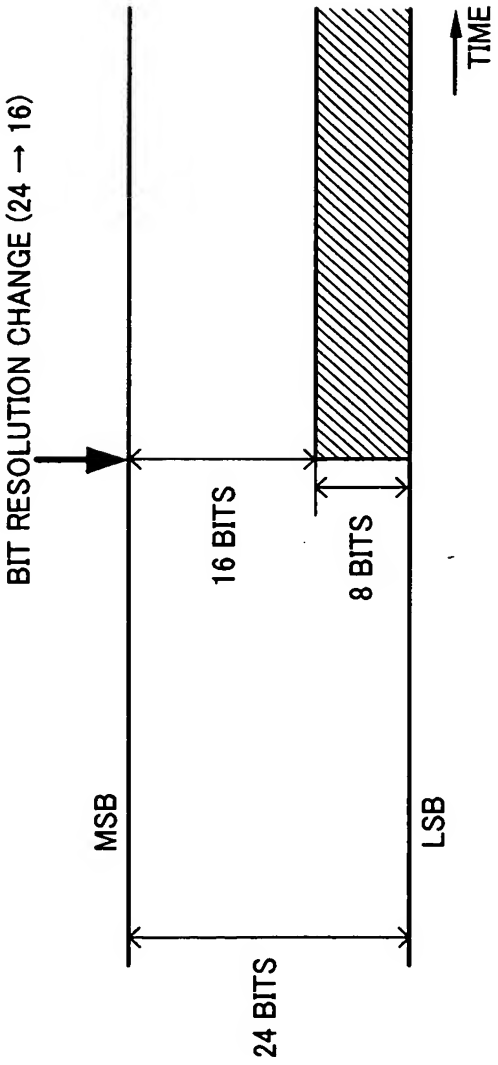


Fig. 18A

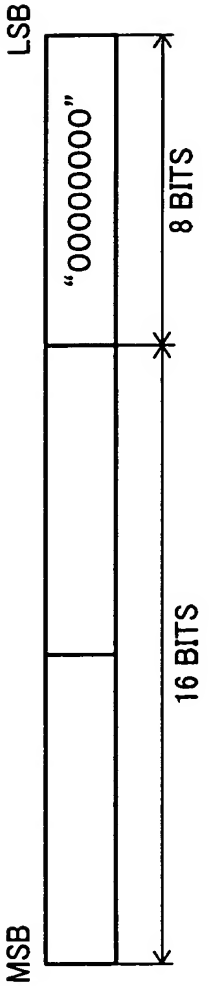


Fig. 18B

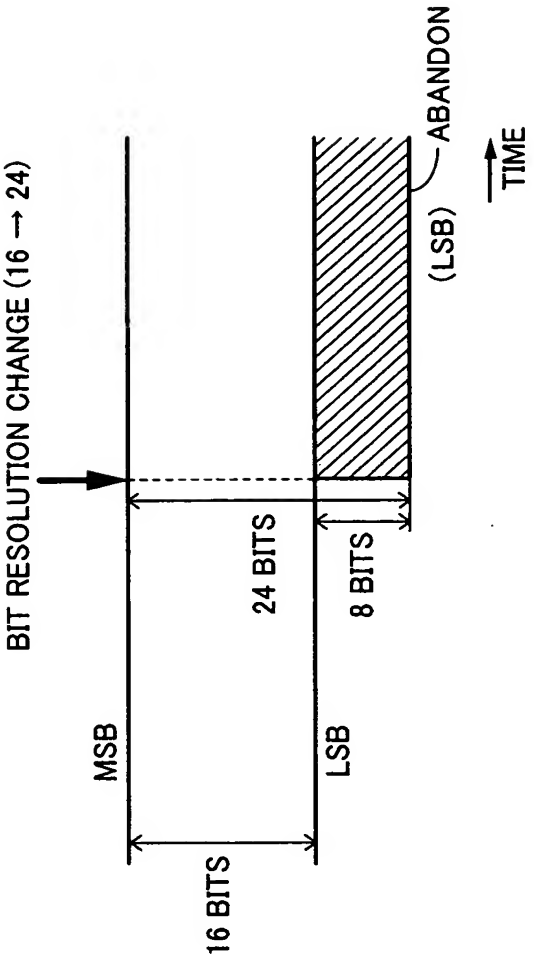


Fig. 19A

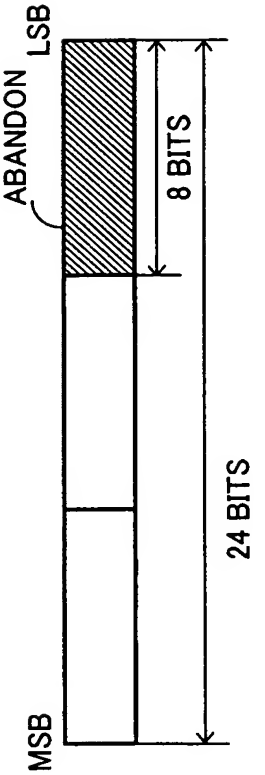


Fig. 19B

DESCRIPTION OF REFERENCE NUMERALS

1	OPTICAL DISC
10	DISC RECORDING AND REPRODUCING APPARATUS
16	SIGNAL PROCESSING UNIT
17	MEMORY CONTROLLER
18	MEMORY
19	DATA CONVERTING UNIT
20	CONTROL UNIT
21	OPERATION UNIT
31	SIGNAL INPUT/OUTPUT UNIT
42	DATA AMOUNT DETECTING UNIT
43	IMAGE SIGNAL CONVERTING UNIT
44	AUDIO SIGNAL CONVERTING UNIT
45B	IMAGE DATA CONVERTING UNIT
46	AUDIO DATA CONVERTING UNIT
48	AUXILIARY AV DATA CONVERTING UNIT
49	AUXILIARY AV DATA CONVERTING UNIT